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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/773,930	02/06/2004	Wenjie Li	FIS920030408US1	7400
30449 7590 11/29/2004				
SCHMEISER, OLSEN + WATTS				
SUITE 201				
3 LEAR JET				
LATHAM, NY 12033				
			EXAMINER	
			LEE, SIN J	
		ART UNIT	PAPER NUMBER	
		1752		

DATE MAILED: 11/29/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/773,930

Applicant(s)

LI ET AL.

Examiner

Sin J. Lee

Art Unit

1752

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 February 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,9-12,16,27 and 28 is/are rejected.
- 7) ☒ Claim(s) 2-8,13-15,17-26,29 and 30 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 28 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 28 recites the limitation "wherein the solvent comprises . . . " in line 1.

There is insufficient antecedent basis for this limitation in the claim. For the purpose of examining claim 28 on the merit, the Examiner assumed that the claim depends from claim 27.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1 and 16 are rejected under 35 U.S.C. 102(b) as being anticipated by Nakamura (JP 2000-66393 and its English abstract from Chemical Abstract).

The Japanese document has been submitted for full English translation. Only the English abstract is available at this time.

Nakamura teaches (see English abstract) a negative-working image-recording material useful as lithographic plate which comprise a crosslinking compound, a

polymer having aromatic hydrocarbon ring to which OH links directly on its side chain or backbone (present resist polymer of claims 1 and 16) as a binder, a compound that generates an acid upon IR laser. The specific crosslinking compound shown on the last page of the English abstract (2-hydroxy-N,3,5-tris(hydroxymethyl)-benzeneacetamide) teaches present additive of claims 1 and 16 (present R_2 - R_5 would all be H atoms, and present R_1 would be a substituted *aralkyl group* (present claim language does not exclude a *substituted* aralkyl group for R_1). Therefore, Nakamura teaches present negative photoresist composition (since Nakamura's polymer have -OH group attached to the aromatic ring, it is the Examiner's position that the polymer would inherently be soluble in an aqueous alkaline developer solution. Also, since Nakamura teaches present polymer structure, it is the Examiner's position that Nakamura's polymer would inherently be capable of being adapted to chemically react with the crosslinking compound (present additive of claims 1 and 16) in the presence of the acid to generate a product that is insoluble in the developer solution as presently recited). Since Nakamura's material is being used to make a negative working lithographic plate, it is the Examiner's position that it is impliedly taught (i.e., one of ordinary skill in the art would understand) that his material would be applied to the lithographic base material, imagewise exposed to IR laser in which the exposed portions will be crosslinked (and thus become insoluble in a developer solution), and then the unexposed portions would be developed away to obtain a negative pattern. Therefore, Nakamura teaches present inventions of claims 1 and 16.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 9-12, 27, and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakamura (JP 2000-66393 and its English abstract from Chemical Abstract) in view of Hatakeyama et al (US 6,749,988 B2).

The English abstract of Nakamura does not disclose present quencher of claims 9, 12, and 27. However, it is well known in the art to add a base (amine compounds) to a composition containing an acid generator in order to enhance contrast (between exposed and unexposed portions) so as to achieve a high resolution in a resist pattern, as evidenced by Hatakeyama, col.2, lines 66-67, col.3, line 1. Thus, it would have been obvious to one of ordinary skill in the art to add amine compound into Nakamura's resist material (which contains the compound that generates an acid) in order to enhance contrast and to achieve high resolution in a resist pattern as taught by Hatakeyama. Therefore, Nakamura in view of Hatakeyama would render obvious present inventions of claims 9, 12, and 27.

With respect to present claims 10, 11, and 28, present claim language does not require the presence of solvent. It only requires that *if* the composition of claims 9 and 27 happens to further comprise a solvent (instead of a quencher) *then* the solvent should be chosen from those listed in claims 10, 11, and 28. Thus, Nakamura in view of Hatakeyama would still render obvious present inventions of claims 10, 11, and 28.

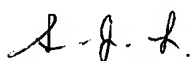
Allowable Subject Matter

7. Claims 2-8, 13-15, 17-26, 29, and 30 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. English abstract of Nakamura in view of Hatakeyama does not teach or suggest present inventions of claims 2-8, 13-15, 17-26, 29, and 30.

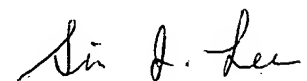
8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sin J. Lee whose telephone number is 571-272-1333. The examiner can normally be reached on Monday-Friday from 9:00 am EST to 5:30 pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cynthia Kelly, can be reached on 571-272-1526. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



S. Lee
November 28, 2004



Sin J. Lee
Patent Examiner
Technology Center 1700